AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Patent Application No.: 10/781,911

Attorney Docket No.: Q79997

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1. (currently amended): An arc welder having: a rectifier circuit which rectifies an

alternating current to a direct current; an inverter circuit which converts an output of said

rectifier circuit to a high-frequency alternating current; a transformer which converts an output of

said inverter circuit to a voltage suitable for arc welding; a second rectifier circuit which rectifies

an output of said transformer to a direct current; and a first reactor which is connected to said

second rectifier circuit, wherein

said arc welder comprises a current circuit which is connected in parallel to said second

rectifier circuit with a reactance that is larger than a reactance of said first reactor-,

wherein a voltage that is applied to the current circuit from the transformer is higher than

a voltage that is applied to the second rectifier circuit from the transformer, and

an output voltage of the current circuit is higher than an output voltage of the second

rectifier circuit.

2. (original): The arc welder according to claim 1, wherein said reactance of said first

reactor is 20 µH (microhenries) or smaller, and said reactance of said current circuit which is

connected in parallel to said second rectifier circuit is 100 µH or larger.

2

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Patent Application No.: 10/781,911

3. (original): The arc welder according to claim 1 or 2, wherein said current circuit which is connected in parallel to said second rectifier circuit comprises:

Attorney Docket No.: Q79997

- a current controlling circuit which controls a current;
- a third rectifier circuit which rectifies said controlled current; and
- a second DC reactor which is connected to said third rectifier circuit.